

*22nd Annual E. Leonard Arnoff Memorial Lecture
on the Practice of Management Science*

*“Congestion and Delays in the
National Air Transportation System”*

*Cynthia Barnhart, Massachusetts Institute of Technology
Ford Professor of Engineering and Associate Dean, School of Engineering
Professor of Civil and Environmental Engineering and Engineering Systems
Director of Transportation@MIT*

7:00 P.M., Thursday, April 11, 2013

*Fealy Auditorium, Room 112, Carl H. Lindner Hall
Carl H. Lindner College of Business, University of Cincinnati*

Delays to flights and passengers cost airlines, passengers and national economies billions of dollars annually. The causes, in large part, can be traced to a number of factors, including aviation regulator capacity allocation policies, airline scheduling practices, and airline competition. Airline competition can lead to increased flight frequencies, increased congestion levels and extensive delays in the U.S. National Aviation System. In this talk, we quantify flight and passenger delays, and estimate the contribution to delays of airline competition. We establish the connection between competition and congestion, and describe congestion mitigation strategies and policies that can lead to significant reductions in flight and passenger delays, and significant improvements in airline profits.

Reception Follows, 1st Floor Lobby, Carl H. Lindner Hall

*Sponsors: Department of Operations, Business Analytics, & Information Systems
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*Free & Open to the Public.
Information: (513)556-7140 or
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Cynthia Barnhart



At MIT, Cynthia Barnhart is the Ford Professor of Engineering and Associate Dean in the School of Engineering, Professor of Civil and Environmental Engineering and Engineering Systems, and director of Transportation@MIT. The Transportation@MIT initiative is a coordinated effort at MIT to address the pressing challenge of meeting the ever-increasing demand for transportation in a sustainable manner. Professor Barnhart is a member of the U.S. National Academy of Engineering and has also served at MIT as Interim Dean of the School of Engineering, and co-director of both the Center for Transportation and Logistics and the Operations Research Center. She has served in editorial positions for *Operations Research*, *Transportation Science*, and *Management Science*. She is the former president of INFORMS, of the INFORMS Women in Operations Research/Management Science Forum and of the INFORMS Transportation Science and Logistics Society. Professor Barnhart has been awarded the INFORMS Award for the Advancement of Women in Operations Research and Management Science, the Franz Edelman prize for excellence in operations research and management sciences (2nd-place), and a Presidential Young Investigator Award from the National Science Foundation. Professor Barnhart's teaching and research interests involve the development of optimization methods for large-scale transportation and logistics problems. Her approaches often require the development of new models and algorithms, and their implementations in real operating environments.